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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/077,408	02/15/2002	Barry Olen Blair	VPI 2426000	3225

7590

04/13/2004

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EXAMINER

LAM, TUAN THIEU

ART UNIT	PAPER NUMBER
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2816

DATE MAILED: 04/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No.	Applicant(s)	
	10/077,408	BLAIR ET AL.	
	Examiner	Art Unit	
	Tuan T. Lam	2816	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5,7 and 8 is/are rejected.
- 7) ☒ Claim(s) 6 and 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 May 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This is a response to the amendment filed 4/5/2004. Claims 1-9 are pending. The allowability of claims 3-9 has been withdrawn in view of a new ground of rejection.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Callahan (USP 5,418,486). Figure 2 shows a circuit for generating a constant pulse width output signal comprising steps of applying one of the pair of pulse width modulated signals (202, 236) to both a set input of a latch circuit (250, 252) and to a delay circuit (204), applying the other of the pair of the pulse width modulated signals (202, 236) to a reset input of the latch circuit, wherein both of the pair of pulse width modulated signals have substantially constant and equidistant start transition times (figure 3), obtaining a constant width drive signal for the output (Q, Q/) of the latch circuit, obtaining a second pulse width modulated drive signal from an output of the delay circuit (output of the delay circuit 204 at node 208) as called for in claim 1.

3. Claim 2 is rejected under 35 U.S.C. 102(b) as being anticipated by Callahan (USP 5,418,486). Figure 2 shows a circuit for generating a constant pulse width output signal comprising a first pulse width modulated control signal supplying means (220), a second pulse width modulated control signal supplying means (230), wherein both of the pair of pulse width modulated signals have substantially constant and equidistant start transition times, a toggle

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circuit (250, 252) connected to said first and second control signal supplying means, the toggle circuit supplying a first output drive signal level (Q) upon detecting a given characteristic of a first pulse width modulated control signal, and supplying a second output signal (Q/) level upon detecting said given characteristic of a second pulse width modulated control signal received from said second supply means, a delay circuit (204) connected at least to the first pulse width modulated control signal supplying means (220), wherein the delay circuit at least provides a pulse width modulated drive signal (output of the delay circuit 204) as called for in claim 2.

4. Claims 3-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Callahan (USP 5,418,486). Figure 2 shows a circuit for generating a constant pulse width output signal comprising steps of applying one of the pair of pulse width modulated signals (202, 236) to both a set input of a latch circuit (250, 252) and to a turn-on delay circuit (204), wherein the turn on delay is such that an output voltage transition of the turn on delay circuit coincides with an output voltage transition of the latch circuit (figure 3 shows the edges of the output of the DELAY OUTPUT coincides with the INVERTER Q OUTPUT and Q OUTPUT of the RS latch), applying the other of the pair of the pulse width modulated signals (202, 236) to a reset input of the latch circuit, wherein both of the pair of pulse width modulated signals have substantially constant and equidistant start transition times (figure 3), obtaining a constant width drive signal for the output (Q, Q/) of the latch circuit, obtaining a second pulse width modulated drive signal from an output of the delay circuit (output of the delay circuit 204 at node 208) as called for in claims 3-4.

5. Claims 5 and 7-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Callahan (USP 5,418,486). Figure 2 shows a circuit for generating a constant pulse width output signal

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comprising steps of applying both the pair of pulse width modulated signals (202, 236) to a first drive circuit (230, 220, 250, 252), toggling the first drive circuit between predetermined output drive signal voltage levels upon detection of a give transition characteristic of each of the pair of pulse width modulated input control signals, and delaying the application of one of said pair of pulse width modulated control signals to a second drive circuit (delay circuit (204)), wherein the output voltage transition of the delay circuit coincides with an output voltage transition of the latch circuit (figure 3 shows the edges of the output of the DELAY OUTPUT coincides with the INVERTER Q OUTPUT and Q OUTPUT of the RS latch as called for in claims 5, 7-8

Allowable Subject Matter

1. Claims 6 and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

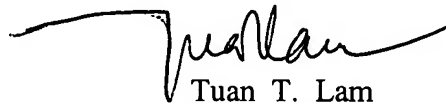
2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan T. Lam whose telephone number is 571-272-1744. The examiner can normally be reached on Monday to Friday (7:30 am to 6:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, TIMOTHY P CALLAHAN can be reached on 571-272-1740. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Tuan T. Lam', with a long horizontal stroke extending to the right.

Tuan T. Lam
Primary Examiner
Art Unit 2816

4/9/2004